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## **STATE INSTALLS SOLAR-POWERED POND CIRCULATORS AT LAKE COCHITUATE TO STUDY IMPACT ON INVASIVE AQUATIC PLANTS**

The Massachusetts Department of Conservation and Recreation (DCR) Lakes and Ponds Program today hosted a demonstration of two SolarBee solar-powered water circulators being installed at Cochituate State Park in Natick, launching a one-year study of the machines' potential for slowing the growth of aquatic invasive species in the lake. Following the demonstration, a crane and boat were used to place the machines in Middle Pond and South Pond.

DCR's partner in the project, the Tufts University Civil and Environmental Engineering Department, will conduct a research study, the first such study undertaken in the US, to determine their effectiveness in combating invasive species in the lake.

"These circulators could prove to be valuable non-chemical tools for combating this problem," said DCR Commissioner Stephen H. Burrington. "We are proud to partner with Tufts to explore new techniques to combat the problem of invasive species in Massachusetts."

"We are delighted to be working with such engaged partners like DCR and the communities that share in the preservation of Lake Cochituate," said John Durant, Ph.D., P.E., Associate Professor of Civil and Environmental Engineering at Tufts and Research Director for the SolarBee Project.

The SolarBee circulators are on loan to DCR free of charge for the duration of the one-year study, courtesy of the manufacturer, Pump Systems, Inc., representing a cost savings of \$80,000. The machines run entirely on solar power and circulate water to increase oxygen levels. Currently, there is only anecdotal evidence that the circulators may help reduce the cover and density of aquatic invasive species. The Tufts study will measure any change in the lake's invasive plant population and document other effects of the machines, such as changes in water quality and sediments.

The \$75,000 study will run for 16 months. Tufts began work in late August, 2006, monitoring the lake for two months prior to the installation of the circulators. They will continue with a year of monthly monitoring, and will take two months (November and December, 2007) to complete a final analysis of the data analysis. DCR anticipates announcing the study results in December 2007.

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DCR hired Tufts to carry out the study based on the university's outstanding reputation in the field of environmental science, and its proven track record with pond and river restoration projects, including Spy Pond in Arlington and the Aberjona Watershed. Dr. Durant, Research Director for the project, has over 20 years of experience in environmental consulting and research.

Since being discovered in Lake Cochituate's South Pond in 2002, invasive plants have spread to over 100 acres of the lake, posing a threat to its native plant population and recreational value. Additionally, a fourth species of invasive plant was discovered in the lake this year. The SolarBee study is part of DCR's ongoing effort to control the lake's invasive species. DCR employs other mechanical and biological control techniques, such as hand-pulling, benthic matting and diver-assisted suction harvesting.

In the 1800s, Lake Cochituate was the principal water supply for the City of Boston until it was supplanted by the Quabbin Reservoir in the 1930s. Today, Lake Cochituate is a popular destination for swimming, fishing, recreational boating and more.

For more information on DCR's Lakes and Ponds Program, please see <http://www.mass.gov/lakesandponds>.

For further information about the SolarBee circulators, please visit <http://www.solarbee.com>.

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